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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,207	11/10/2003	Timothy D. Britt	8016-608	2942

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INDIANAPOLIS, IN 46204-5137

EXAMINER

NGUYEN, NINH H

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/705,207	<b>Applicant(s)</b> BRITT ET AL.	
	<b>Examiner</b> Ninh H. Nguyen	<b>Art Unit</b> 3745	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-23 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/08/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Rowley et al. (3,914,072).

Rowley discloses a fluid pump (Fig. 2) comprising a centrifugal rotor 24 having a hub and an outer diameter; a housing 14 for rotatably supporting the rotor and including a seal housing 28; a first rotating seal member 48 coupled to the hub of the rotor; a second static seal member 56 coupled within the seal housing and having a portion thereof in contact with a portion of the first seal member, wherein the housing defines a fluid passageway (between numerals 24 and 28 of Fig. 2) for providing a flow of fluid from the outer diameter of the rotor toward the portion of the second seal in contact with the portion of the first seal, the passageway having portion along the length thereof with a cross sectional area that decreases in the direction from the outer diameter toward the portion of the second seal;

wherein the rotor includes a substantially planar backplate (Fig. 2), and the passageway is located in a face of the housing opposite of the backplate.

3. Claims 1, 2, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ray et al. (5,591,001).

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Ray discloses a fluid pump (Figs. 1, 3) comprising a centrifugal rotor 30 having a hub and an outer diameter; a housing 12 for rotatably supporting the rotor and including a seal housing 18; a first rotating seal member 54 coupled to the hub of the rotor; a second static seal member 52 coupled within the seal housing and having a portion thereof in contact with a portion of the first seal member, wherein the housing defines a fluid passageway (between vane segments 86; Fig. 3) for providing a flow of fluid from the outer diameter of the rotor toward the portion of the second seal in contact with the portion of the first seal, the passageway having a portion along the length thereof with a cross sectional area that decreases in the direction from the outer diameter toward the portion of the second seal;

wherein the housing includes a substantially planar surface (Fig. 1), the rotor includes a backplate 36 spaced apart from and rotating over the surface of the housing, the fluid passageway includes a first wall (walls of adjacent vanes 86; Fig. 3) intersecting the surface of the housing and a second wall intersecting the surface of the housing, and the distance between the first wall and the second wall measured perpendicular to the path of the passageway decreases in the direction from the outer diameter toward the portion of the second seal.

Regarding claim 8, the passageway between vane segments 86 has a polygonal cross section (Fig. 3).

***Allowable Subject Matter***

4. Claims 12-18, due to the limitation of an open channel fluid passageway having a curved portion along the length thereof, are allowed.

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5. Claims 19-23, due to the limitations of a partially open channel configured to increase the energy of the fluid in the passageway flowing toward the seal housing, are allowed.

6. Claims 4-7, and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Prior Art***

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Mitchell (5,409,350) is cited to show a pump having a flow passage narrowing toward the pump seal.

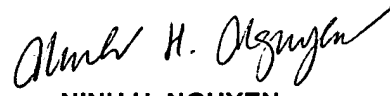
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).

  
**NINH H. NGUYEN**  
**PRIMARY EXAMINER**

Nhn  
December 21, 2004